

Abstract

A large-capacity CDMA transmission system that can realize communication with a moving unit such as an automobile, transmitting more quantity of information than the conventional
5 system without increasing the occupied band width, using the same or narrower frequency band width.

This system assumes the code division multiple access (CDMA) transmission system for simultaneous multiple communication, which performs phase modulation on a carrier signal
10 while maintaining a phase of the carrier signal in a predetermined period at a predetermined value, so as to generate a primary modulated wave, and then, multiplies the obtained primary modulated wave by a spread code sequence. On the transmitting side, a differential coding phase modulation (DPSK) is employed to
15 generate a primary modulated wave. On the other hand, on the receiving side, a quasi-synchronous detection and difference operation are utilized to detect the phase difference between the last symbol interval and the current symbol interval, and the detected phase difference is given as the information of the current symbol
20 interval.